

REMARKS

I. General Remarks

The application has been reviewed in light of the Non-Final Office Action mailed July 14, 2005. At the time of the Non-Final Office Action, claims 1-43 were pending in this application.

Claims 1- 43 stand rejected in view of prior art. For the reasons discussed below, the Applicants believe that all of the remaining claims are patentable over the cited prior art, and therefore respectfully traverse the Examiner's rejection.

II. 35 U.S.C. § 103(a) Rejections

A. *Zupanick* in view of *McDaniel*

Claims 1-6, 8-13, 15-19, and 21-38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over either U.S. Patent 6,425,448 issued to *Zupanick et al.* [hereinafter *Zupanick*] or in view of U.S. Patent 5,547,023 issued to *McDaniel et al.* [hereinafter *McDaniel*].

A prima facie case of obviousness requires a showing that all claim limitations be taught or suggested by the art. M.P.E.P. § 2143.03. Applicants respectfully submit the combination of *Zupanick* and *McDaniel* fails to yield a process within the scope of the Applicants' claims. *Zupanick* and *McDaniel* fail to form a proper basis for a prima facie case of obviousness, because they fail to teach all of the limitations of the claimed invention.

In particular, as to independent claims 1, 11, 24, 29, 34, and 39, the cited references do not contain any teaching of "using a hydrojetting tool to produce a plurality of fractures, wherein the plurality of fractures is spaced to maximize interference between the fractures." The specification of the present application makes clear that the spacing of the plurality of fractures to maximize interference between the fractures is determined in part by the methods disclosed in pending U.S. Patent Application serial no. 10/728,295, "Methods for

Geomechanical Fracture Modeling.” The specification of this copending application has been incorporated by reference in full into the present disclosure, and as such forms part of the present disclosure. As neither of the cited references contain any teaching of this step of using the methods disclosed in U.S. Patent Application serial no. 10/728,295 to determine the spacing of the plurality of fractures to maximize interference between the fractures, the cited references cannot form a proper basis for a prima facie case of obviousness.

Furthermore, Applicants respectfully submit that it would not have been obvious to one skilled in the art to combine the cited references to arrive at the specific combination of elements of Applicants’ claims. The mere fact that references can be combined does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990). The showing must be clear and particular. *See, e.g., C.R. Bard v. M3 Sys., Inc.*, 48 USPQ^{2d} 1225, 1232 (Fed. Cir. 1998). The Examiner has not provided adequate evidence of the required motivation or suggestion to make the proposed combination. The Examiner merely states “The motivation for this combination is that it allows a poorly consolidated or otherwise unstable formation to be completed in a manner whereby wellbore stability problems are avoided” to support his contention that the combination of *Zupanick* and *McDaniel* would be obvious to a person of ordinary skill in the art (*Office Action*, page 3). The Examiner has not shown any motivation to combine and instead simply relies upon hindsight. It is improper for an Examiner to use hindsight having read the Applicant’s disclosure to arrive at an obviousness rejection. *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). It is improper to use the claimed invention as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered obvious. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). Because the Examiner has merely used Applicant’s claims as an instruction manual to piece

together the elements of *Zupanick* with the elements of *McDaniel*, Applicant respectfully submits that the proposed *Zupanick-McDaniel* combination is improper and should not be used here to reject Applicant's claims.

The Examiner writes further as follows:

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified *Zupanick et al.*'s invention in view of *McDaniel et al.*'s method and line or case the horizontal well bores using a hydr jetting tool to produce a plurality of fractures, wherein the plurality of fractures is spaced to maximize interference between the fractures and wherein the plurality of fractures enhances the production of gas from the coal seam of the subterranean formation.

Office Action, page 3.

As provided in M.P.E.P. § 2144.03(C), a conclusion as to the supposed action of a person of ordinary skill in the art is insufficient to establish a prima facie case of obviousness. To the extent that Examiner relies on such a statement or statements to supply the necessary motivation to combine or modify the prior art references, Applicants hereby respectfully traverse the lack of such a showing and request under M.P.E.P. § 2144.03(C) that the Examiner supply an affidavit or other documentary proof establishing the prior art knowledge that would have motivated a person of ordinary skill in the art to make the specific modification and/or combination of elements to arrive at Applicants' invention.

Further, the M.P.E.P. also makes clear the requirement that the Examiner provide objective reasons to combine the references apart from naked statements that "it would be obvious to a person of ordinary skill." M.P.E.P. § 2143.01 (explaining that "A statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill of the art' at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not

sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references.” (citations omitted)).

Thus, for at least these reasons, the cited references fail to teach each and every limitation of Applicants’ claims and that combining *Zupanick* and *McDaniel* is an inappropriate combination of references. Further, the references contain no suggestion or motivation to combine or to modify the references to arrive at the specific combination of elements of the present invention. Thus, Applicants respectfully request the removal of the 35 U.S.C. § 103(a) rejection as to the independent claims 1, 11, 24, 29, 34, and 39 and correspondingly, dependent claims 2-6, 8-10, 12-13, 15-19, 21-23, 25-28, 30-33 and 35-38.

B. *Zupanick* in view of *McDaniel* and further in view of *Milne*

Claims 7 and 20 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. U.S. Patent No. 3,099,318 issued to Miller *et al.* [hereinafter “*Miller*”] in view of U.S. Patent 5,507,345 issued to Wehunt *et al.* [hereinafter “*Wehunt*”] and further in view of U.S. Patent Publication 2002/0170712 issued to Milne *et al.* [hereinafter *Milne*].

A *prima facie* case of obviousness requires a showing that all claim limitations be taught or suggested by the art. M.P.E.P. § 2143.03. Applicants respectfully submit the combination of *Zupanick* and *McDaniel* and further in view of *Milne* fail to yield a process within the scope of the Applicants’ claims. *Zupanick*, *McDaniel*, and *Milne* fail to form a proper basis for a *prima facie* case of obviousness, because they fail to teach all of the limitations of the claimed invention.

In particular, as to independent claims 1 and 11 (from which claims 7 and 20 depend), the cited references do not contain any teaching of “using a hydrajetting tool to produce a plurality of fractures, wherein the plurality of fractures is spaced to maximize interference between the fractures.” The specification of the present application makes clear that the spacing

of the plurality of fractures to maximize interference between the fractures is determined in part by the methods disclosed in pending U.S. Patent Application serial no. 10/728,295, "Methods for Geomechanical Fracture Modeling." The specification of this copending application has been incorporated by reference in full into the present disclosure, and as such forms part of the present disclosure. As neither of the cited references contain any teaching of this step of using the methods disclosed in U.S. Patent Application serial no. 10/728,295 to determine the spacing of the plurality of fractures to maximize interference between the fractures, the cited references cannot form a proper basis for a prima facie case of obviousness.

Furthermore, Applicants respectfully submit that it would not have been obvious to one skilled in the art to combine the cited references to arrive at the specific combination of elements of Applicants' claims. The Examiner states "The motivation for this combination is that it allows the oil/gas producer to assess the potential output of the well and where it perforates" to support his contention that the combination of *Zupanick*, *McDaniel*, and *Milne* would be obvious to a person of ordinary skill in the art (*Office Action*, page 5). The Examiner has not shown any motivation to combine and instead simply relies upon hindsight. It is improper for an Examiner to use hindsight having read the Applicant's disclosure to arrive at an obviousness rejection. *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). It is improper to use the claimed invention as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered obvious. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). Because the Examiner has merely used Applicant's claims as an instruction manual to piece together the elements of *Zupanick* with the elements of *McDaniel*, Applicant respectfully submits that the proposed *Zupanick-McDaniel-Milne* combination is improper and should not be used here to reject Applicant's claims.

The Examiner writes further as follows:

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Zupanick et al.'s invention and McDaniel et al.'s method and insert logging equipment in the horizontal well bore in view of the teachings of Milne et al.

Office Action, page 5.

As provided in M.P.E.P. § 2144.03(C), a conclusion as to the supposed action of a person of ordinary skill in the art is insufficient to establish a prima facie case of obviousness. To the extent that Examiner relies on such a statement or statements to supply the necessary motivation to combine or modify the prior art references, Applicants hereby respectfully traverse the lack of such a showing and request under M.P.E.P. § 2144.03(C) that the Examiner supply an affidavit or other documentary proof establishing the prior art knowledge that would have motivated a person of ordinary skill in the art to make the specific modification and/or combination of elements to arrive at Applicants' invention.

Thus, *Milne* does not supply any additional motivation to combine or modify the cited references, and as such, Applicants respectfully submit that a prima facie case of obviousness has not been made as to Applicants claims. Accordingly, for at least the reasons herein, Applicants respectfully request removal of the 35 U.S.C. § 103(a) rejection as to dependent claims 7 and 20.

C. *Zupanick* in view of *McDaniel* and further in view of *Gardes*

Claims 14 and 39-43 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 3,099,318 issued to Miller *et al.* [hereinafter "*Miller*"] in view of U.S. Patent 5,507,345 issued to Wehunt *et al.* [hereinafter "*Wehunt*"] and further in view of U.S. Patent Publication 2003/0062198 issued to Gardes *et al.* [hereinafter "*Gardes*"].

A prima facie case of obviousness requires a showing that all claim limitations be taught or suggested by the art. M.P.E.P. § 2143.03. Applicants respectfully submit the

combination of *Zupanick* and *McDaniel* and further in view of *Gardes* fail to yield a process within the scope of the Applicants' claims. *Zupanick*, *McDaniel*, and *Gardes* fail to form a proper basis for a prima facie case of obviousness, because they fail to teach all of the limitations of the claimed invention.

In particular, as to independent claims 11 and 39 (from which claims 14 and 39-43 depend), the cited references do not contain any teaching of "using a hydrojetting tool to produce a plurality of fractures, wherein the plurality of fractures is spaced to maximize interference between the fractures." The specification of the present application makes clear that the spacing of the plurality of fractures to maximize interference between the fractures is determined in part by the methods disclosed in pending U.S. Patent Application serial no. 10/728,295, "Methods for Geomechanical Fracture Modeling." The specification of this copending application has been incorporated by reference in full into the present disclosure, and as such forms part of the present disclosure. As neither of the cited references contain any teaching of this step of using the methods disclosed in U.S. Patent Application serial no. 10/728,295 to determine the spacing of the plurality of fractures to maximize interference between the fractures, the cited references cannot form a proper basis for a prima facie case of obviousness.

Furthermore, Applicants respectfully submit that it would not have been obvious to one skilled in the art to combine the cited references to arrive at the specific combination of elements of Applicants' claims. The Examiner states "The motivation for this combination is that the principle well bore could be maintained live while one or more of the radial or multilateral wells were being drilled or completed so as to maintain the well live and yet protect the surrounding formation" to support his contention that the combination of *Zupanick*, *McDaniel*, and *Gardes* would be obvious to a person of ordinary skill in the art (*Office Action*,

page 5). The Examiner has not shown any motivation to combine and instead simply relies upon hindsight. It is improper for an Examiner to use hindsight having read the Applicant's disclosure to arrive at an obviousness rejection. *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). It is improper to use the claimed invention as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered obvious. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). Because the Examiner has merely used Applicant's claims as an instruction manual to piece together the elements of *Zupanick* with the elements of *McDaniel*, Applicant respectfully submits that the proposed *Zupanick-McDaniel-Gardes* combination is improper and should not be used here to reject Applicant's claims.

The Examiner writes further as follows:

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified *Zupanick et al.*'s invention and *McDaniel et al.*'s method and create a plurality of substantially horizontal well bores that are arranged in a radial pattern in view of the teachings of *Gardes*.

Office Action, page 5.

As provided in M.P.E.P. § 2144.03(C), a conclusion as to the supposed action of a person of ordinary skill in the art is insufficient to establish a prima facie case of obviousness. To the extent that Examiner relies on such a statement or statements to supply the necessary motivation to combine or modify the prior art references, Applicants hereby respectfully traverse the lack of such a showing and request under M.P.E.P. § 2144.03(C) that the Examiner supply an affidavit or other documentary proof establishing the prior art knowledge that would have motivated a person of ordinary skill in the art to make the specific modification and/or combination of elements to arrive at Applicants' invention.

Thus, *Gardes* does not supply any additional motivation to combine or modify the cited references, and as such, Applicants respectfully submit that a prima facie case of obviousness has not been made as to Applicants claims. Accordingly, for at least the reasons herein, Applicants respectfully request removal of the 35 U.S.C. § 103(a) rejection as to claims 14 and 39-43.

SUMMARY

In light of the above amendments and remarks, Applicants respectfully submit that the application is now in condition for allowance and early notice of the same is earnestly solicited. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile or electronic mail, as indicated below.

Applicants believe that no fees are due in association with the filing of this Response. However, should the Commissioner deem that any fees are due, including any fees for extensions of time, the Commissioner is authorized to debit the Deposit Account of Halliburton Energy Services, Inc., No. 08-0300, for any underpayment of fees that may be due in association with this filing.

Respectfully submitted,



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